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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/648,249

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Jin-su Yun

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EXAMINER

QIN, YIXING

ART UNIT

PAPER NUMBER

2625

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/648,249	<b>Applicant(s)</b> YUN, JIN-SU	
	<b>Examiner</b> Yixing Qin	<b>Art Unit</b> 2625	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/28/05, 11/28/05</u> | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

I. Claims 5-9, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujiwara (U.S. PG Pub. No. 2002/0054342)

Regarding claim 5, Fujiwara discloses an image forming device, comprising:  
a first storage storing a first function program; (P[0034] – ROM 2 is used for storing a boot program)  
a system memory; (RAM 3)  
a second storage storing a second function program (P[0035] - HD 4 stores OS and processing programs) ; and  
a controller, wherein, when power or a reset signal is applied to the image forming device, the controller executes the first function program and executes the second function program after downloading the second function program to the system memory. (P[0034] and P[0035] – the boot program would cause the transfer of the OS and application program to the RAM. The program is used when the user designates an image input to the program.)

Regarding claim 6, Fujiwara discloses the image forming device of claim 5, wherein the controller selectively executes the second function program stored in the second storage and at least one program downloaded to the system memory. (P[0035] – the programs are executed in response to power on or user intervention)

Regarding claim 7, Fujiwara discloses the image forming device of claim 5, wherein the first function program comprises a boot program. (P[0034])

Regarding claim 8, Fujiwara discloses the image forming device of claim 7, wherein the second function program comprises a system operating program and an application program. (P[0035])

Regarding claim 9, Fujiwara discloses the image forming device of claim 8, wherein the system memory is a buffer to process data generated during an operation of the image forming device in accordance with an execution of the system operating program and the application program. (P[0034] – RAM 3 is a work area for the CPU, OS and processing program)

Regarding claim 15, Fujiwara discloses a method of an image forming device comprising a first storage, a second storage, a memory controller, a system memory, a controller, and an interface portion, the method comprising:

applying power or a reset signal to initialize the image forming device; (P[0035])  
executing a boot program stored in the first storage; (P[0034])  
downloading a system operating program stored in the second storage to the  
system memory; (P[0035]) and  
executing the operating program stored in the system memory when the  
downloading is complete. (P[0035])

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all  
obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

II. Claims 1-4 and 10-13 rejected under 35 U.S.C. 103(a) as being unpatentable  
over Fujiwara (U.S. PG Pub. No. 2002/0054342)

Regarding claim 1, Fujiwara discloses an image forming device, comprising:  
a system memory storing data for a system operation; (RAM 3)  
a memory controller controlling the system memory; (Fig. 6, item 502)  
a printing engine unit performing a printing operation to print data; (Fig. 6, item  
510)  
a controller; (Fig. 6, item 61)

Fujiwara does not explicitly disclose “a system bus having an address bus and a data bus;”

However, Fujiwara discloses two busses in P[0040] – a ring bus 600 and a system bus 505. However, memory buses are known to be comprised of a data and an address bus.

The AAPA and Fujiwara are combinable because both are in the art of using different memories to store different programs in an image processing apparatus.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have used two memories to separate important programs.

The motivation would have been to allow for easier organization of important programs.

Therefore, it would have been obvious to combine the AAPA and Fujiwara to obtain the invention as specified.

Fujiwara further discloses a first storage storing a first function program to perform a booting and initialization of the image forming device; (P[0034] – ROM 2 is used for storing a boot program) and

a second storage storing a second function program to perform a system operation and a specific function, wherein the first storage and the second storage are connected to the controller via the data bus, and at least one of the first storage and the second storage is connected to the controller via the address bus.” (P[0035] - HD 4 stores OS and processing programs.)

Regarding claim 2, Fujiwara discloses the image forming device of claim 2, wherein the controller executes the first function program stored in the first storage when power is applied to the image forming device, and executes the second function program with the executed first function program to initialize the image forming device. (P[0034] and P[0035] – the boot program would cause the transfer of the OS and application program to the RAM)

Regarding claim 3, Fujiwara discloses the image forming device of claim 1, wherein the second function program stored in the second storage is downloaded to the system memory. (P[0035])

Regarding claim 4, Fujiwara discloses the image forming device of claim 1, wherein the controller controls the first storage, the second storage, the memory controller, and the system memory. (P[0039] – system controller 61 controls the entire apparatus)

Regarding claim 10, Fujiwara discloses the image forming device of claim 8, further comprising:

a memory controller downloading the system operating program stored in the second storage to the system memory according to a control from the controller. (Fujiwara does not explicitly disclose that the memory controller is the one performing

Art Unit: 2625

the downloading, but would be obvious for it to control this function since the information is transferred from one memory to another)

Regarding claim 11, Fujiwara discloses the image forming device of claim 5, further comprising:

a system bus comprises an address/data bus and a control bus to connect the first storage, the second storage, the memory controller, and the system memory. (Fujiwara discloses two busses in P[0040] – a ring bus 600 and a system bus 505. Memory buses are known to have a data and an address bus.)

Regarding claim 12, Fujiwara discloses the image forming device of claim 5, further comprising:

a display portion displaying a general operating status of the image forming device according to a control of the controller. (Fujiwara discloses a display control unit and device in Fig. 5. This would be commonly implemented as an control panel on a printer, as to show the status of the printer)

Regarding claim 13, Fujiwara discloses the image forming device of claim 5, further comprising:

an interface portion supporting communication between the image forming device and a host computer, wherein the controller converts printing data from the host computer via the interface portion to data to be processed by a printing engine unit.



III. Claim 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Fujiwara (U.S. PG Pub. No. 2002/0054342) in view of Okubo (U.S. PG Pub. No. 2003/0058471)

Regarding claim 14. The Fujiwara reference discloses the ROM 2 and HDD 4 store the boot program and OS/processing program separately.

It does not explicitly disclose "wherein the boot program is stored in the first storage and the operating program and the application program are stored in the second storage allowing a selective upgrade and management of the programs."

However, Okubo discloses in P[0082] that one or more individual programs can be upgraded. Since the programs in Fujiwara are stored separately, they can be selectively upgraded.

Fujiwara and Okubo are combinable because both are in the art of processing images using software resident in a memory on a printer.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have separately upgraded the programs in different memories on a printer.

The motivation would have been to allow for easier management of programs on a printer.

Therefore, it would have been obvious to combine Fujiwara and Okubo to obtain the invention as specified.


**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yixing Qin whose telephone number is (571)272-7381. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Lamb can be reached on (571)272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
YQ

  
TWYLER LAMB  
SUPERVISORY PATENT EXAMINER